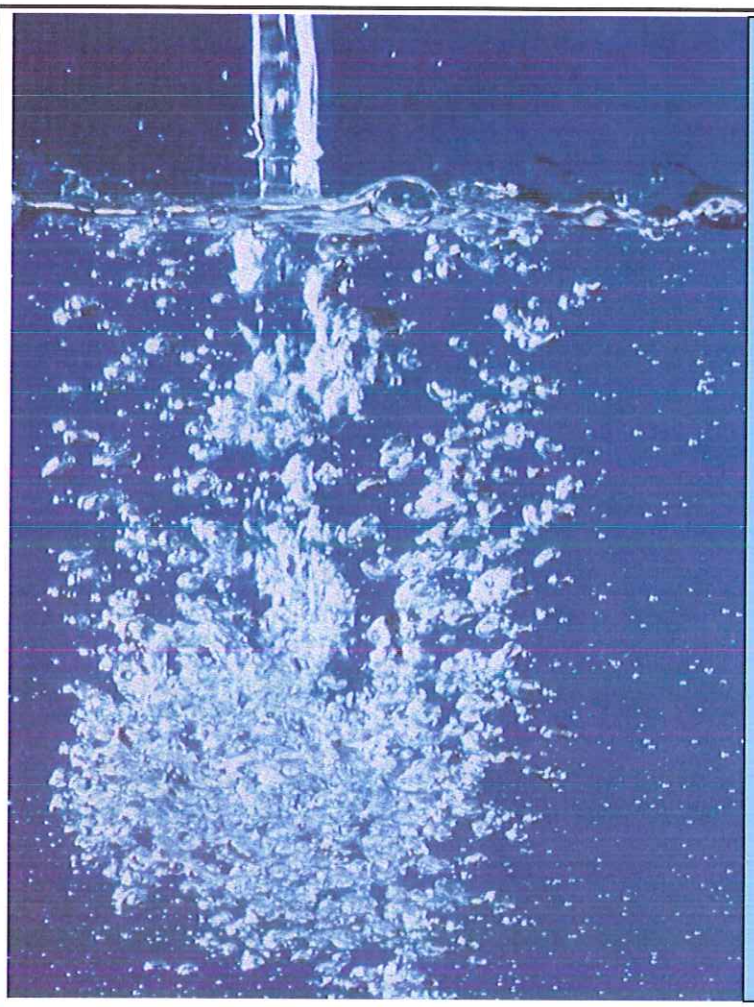

POWER PLANTS 1 AND 2

WATER QUALITY REPORT 2011

The 2011 Water Quality Report for Power Plant 1 and Power Plant 2 was prepared by the Los Angeles Department of Water and Power (LADWP). The report is required by California Department of Public Health (CDPH) and was prepared in accordance with CDPH guidelines. The report gives information about drinking water supplied to Power Plants 1 and 2 during the 2011 calendar year. The data are compared to the current State and Federal Standards. Only those constituents that were detected are listed.

THE BOTTOM LINE

The following substances which have primary standards were detected at low levels in the treated water supplied to Power Plants 1 and 2: arsenic, fluoride, chlorine, radionuclides (beta and uranium), haloacetic acids, trihalomethanes, turbidity and lead at-the-tap. Test results showed that the levels of these substances, with the exception of turbidity and lead at-the-tap, were far below the established maximum contaminant levels (MCLs), which are the health protective standards or action level (AL) set by the United States Environmental Protection Agency (USEPA) and the CDPH.

For more information on these substances, please refer to Table 1, "Health-Based Primary Drinking Water Constituents Found in Water". The additional data for lead and copper on this table are the results of at-the-tap monitoring conducted in 2011 as required by the Lead and Copper Rule.

Power Plants 1 and 2 each had an exceedance in lead at-the-tap in August 2011.
Power Plant 1 had a turbidity exceedance in January 2011.

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

The term "source water" describes where LADWP obtains the water you drink. In general, all drinking water, tap or bottled, comes from either surface water or groundwater sources. Surface water sources include rivers, lakes, streams, ponds, or reservoirs. Groundwater sources are springs or wells.

Power Plant 1 and Power Plant 2 receive surface water from the Los Angeles Aqueduct (LAA). Prior to entering the distribution system, the water is treated at one of two filtration units of each plant and then chlorinated. In addition, each of the homes and power plants is equipped with point-of-entry filters to further treat the water prior to usage.

WHY IS DRINKING WATER MONITORED AND TREATED?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water system. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public heath. Contaminants that may be present in source waters include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts, and metals, which can be naturally-occurring or result from urban storm run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off, and residential uses.

Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off, and septic systems.

Radioactive contaminants, which can be naturally occurring or be a result of oil and gas production and mining activities.

SPECIAL NOTICE TO IMMUNO-COMPROMISED CONSUMERS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risks from infections. These people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800 426-4791).

TERMS USED IN THIS REPORT

AL (Action Level) - Federal: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs (see below) as economically or technologically feasible. For certain contaminants, compliance with the MCL is based on the average of all samples taken throughout the year.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the U.S. Environmental Protection Agency.

NL (Notification Levels) - State: Health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

PHG (Public Health Goal) - State: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards: These standards are based on aesthetic qualities such as taste, odor, and appearance, which affect customer acceptance. They are not considered a health risk if exceeded.

TT (Treatment Technique): A required treatment process, which will reduce the level of a contaminant in drinking water. For example, the filtration process is a treatment technique used to reduce turbidity (the cloudiness of water) and microbial contaminants from water. High turbidities may be indicative of poor or inadequate filtration.

MONITORING OF REGULATED CONSTITUENTS

There are over 110 constituents and contaminants required for monitoring. Utilities monitor for each constituent at varying frequencies based on the type of constituent and the type of source water. For example, groundwater sources are generally sampled once every three years. Those constituents that pose acute risk require more frequent monitoring. Nitrate sampling is required annually, and bacteriological sampling is required monthly. Since most constituents are not detected in our water, only those constituents that are detected are listed in the tables.

MONITORING OF UNREGULATED CONSTITUENTS

There are constituents found in drinking water that are not yet regulated by the USEPA and CDPH. Some of these "unregulated constituents" are monitored because they could be candidates for future regulations, or are of interest to our consumers.

LEAD IN DRINKING WATER

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing.

Some amount of lead was detected at the tap in both systems. One out of five samples in each plant exceeded the Action Level. Public notification was given on August 23, 2011. Studies are being conducted and operational adjustments have been made to address the issue. Follow up samples showed significant improvements. Additional follow up sampling will be conducted in July 2012.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

WATER QUALITY UPDATE

The Power Plants 1 (PP1) and Power Plant 2 (PP2) Domestic Water Treatment Systems underwent improvements in 2011. In response to turbidity violation in December 2010 – January 2011 and CDPH concerns, an "interlock system" was installed to shut down the water treatment plant in case of a high turbidity event, a low chlorine residual, or a loss of power. The interlock system has been working well.

PP1 had turbidity exceedance on January 27, 2011. The turbidity problems were related to modified operations while Train 1 filter was out of service for media replacement. LADWP increased the flow rate of Train 2, resulting in effluent turbidity greater than 1 NTU for over an hour. A treatment operator took corrective action with a series of backwashing and flow rate adjustments, while closely monitoring results. However, it was not apparent that CDPH had to be immediately notified about the turbidity exceedance. This reporting oversight was not discovered until early February.

The PP1 Train 2 filter media was replaced after the episode. LADWP has initiated a more stringent reporting process to identify and investigate treatment and reporting problems earlier. Although the exceedance happened, corrective actions and careful monitoring kept PP1 and PP2 in bacteriological compliance for the month of January 2011. PP2 was in compliance with the Federal LT1 Enhanced Surface Water Treatment Rule requirements.

POWER PLANTS 1 and 2 – 2011 CALENDAR YEAR

TABLE 1

HEALTH-BASED PRIMARY DRINKING WATER CONSTITUENTS DETECTED IN WATER

		Power Plants 1 and 2 Water Quality					
Constituents/ Contaminants	**Units**	**Range**	**Average**	**State or Federal Primary Standard (MCL or MRDL)**	**MEET PRIMARY STANDARDS ?**	**State PHG or (Federal MCLG or MRDLG)**	**Major Source in Drinking Water**
Power Plant 1							
Arsenic	µg/L	<2 – 3.4	<2	10	YES	0.004	Natural hot springs; erosion of natural deposits
Fluoride	mg/L	0.67	0.67	2	YES	1	Erosion of natural deposits
Gross Beta	pCi/L	3.5 – 5.7	4.6	50	YES	(0)	Decay of natural deposits
Uranium	pCi/L	4.4	4.4	20	YES	0.43	Erosion of natural deposits
Power Plant 2							
Fluoride	mg/L	0.66	0.66	2	YES	1	Erosion of natural deposits
Gross Beta	pCi/L	3.1 - 11	6.2	50	YES	(0)	Decay of natural deposits
Uranium	pCi/L	3.1	3.1	20	YES	0.43	Erosion of natural deposits

Arsenic was analyzed but not detected.

TABLE 1 (continued)

Constituents/ Contaminants	Units	Power Plants 1 and 2 Water Quality					
		Range	Average	State or Federal Primary Standard (MCL or MRDL)	MEET PRIMARY STANDARDS ?	State PHG or (Federal MCLG or MRDLG)	Major Source in Drinking Water
Power Plant 1 Distribution System							
Copper (at-the-tap) (a)	ug/L	number of samples exceeding AL = 0 out of 5	90th Percentile value = 175	AL=1300	YES	300	Internal corrosion of household water plumbing systems
Chlorine Residual, Total	mg/L	1.10 – 2.00	1.43	4.0	YES	4.0	Disinfectant
Haloacetic Acids, Total (HAA5)	µg/L	12.3 – 24.9	18.9	60	YES	none	Disinfection by-product
Lead (at-the-tap) (a)	µg/L	number of samples exceeding AL = 1 out of 5	90th Percentile value = 17.7	AL=15	NO	0.2	Internal corrosion of household water plumbing systems
Trihalomethanes, Total (TTHMS)	µg/L	12.0 – 36.2	26.4	80	YES	0	Disinfection by-product
Turbidity (b)	NTU	91.5%	3.65	(0.3) TT	NO	none	Soil runoff
Power Plant 2 Distribution System							
Copper (at-the-tap) (a)	µg/L	number of samples exceeding AL = 0 out of 5	90th Percentile value = 122	AL=1300	YES	300	Internal corrosion of household water plumbing systems
Chlorine Residual, Total	mg/L	0.95 – 3.00	1.23	4.0	YES	4.0	Disinfectant
Haloacetic Acids, Total (HAA5)	µg/L	9.2 – 23.7	16.9	60	YES	none	Disinfection by-product
Lead (at-the-tap) (a)	µg/L	number of samples exceeding AL = 1 out of 5	90th Percentile value = 31.9	AL=15	NO	0.2	Internal corrosion of household water plumbing systems
Trihalomethanes, Total (TTHMS)	µg/L	11.6 – 35.0	26.2	80	YES	0	Disinfection by-product
Turbidity (b)	NTU	98%	1.66	(0.3) TT	YES	none	Soil runoff

POWER PLANTS 1 and 2 – 2011 CALENDAR YEAR

TABLE 2

AESTHETIC-BASED SECONDARY DRINKING WATER CONSTITUENTS DETECTED IN WATER

Constituents/Contaminants	Units	Power Plants 1 and 2 Water Quality				
		Level Detected		Federal & State Secondary Standard (SMCL)	MEET SECONDARY STANDARD?	Major Source in Drinking Water
		Power Plant 1	Power Plant 2			
Chloride	mg/L	37.4	44.2	500	YES	Runoff/leaching from natural deposits
Color	ACU	3.0	3.0	15	YES	Naturally-occurring organic materials
Odor Threshold	TON	1.0	<1	3	YES	Naturally-occurring organic materials
pH	Units	7.35	7.12	6.5 – 8.5	YES	Naturally-occurring gases and minerals
Specific Conductance	uS/cm	370	385	1600	YES	Substances that form ions when in water
Sulfate	mg/L	27.7	28.5	500	YES	Runoff/leaching from natural deposits
Total Dissolved Solids [TDS]	mg/L	227	231	1000	YES	Runoff/leaching from natural deposits
Turbidity	NTU	0.61	0.57	5	YES	Soil runoff

POWER PLANTS 1 and 2 – 2011 CALENDAR YEAR

TABLE 3

UNREGULATED DRINKING WATER CONSTITUENTS DETECTED IN WATER

Constituents/Contaminants	Units	Power Plants 1 and 2 Water Quality		
		Level Detected		Major Source in Drinking Water
		Power Plant 1	Power Plant 2	
Alkalinity, Total (as $CaC0_3$)	mg/L	110	104	Natural constituent
Boron (NL=1000)	µg/L	574	567	Erosion of natural deposits
Calcium	mg/L	24.5	24.5	Natural constituent
Magnesium	mg/L	6.27	6.20	Natural constituent
Potassium	mg/L	5.28	5.20	Natural constituent
Silica	mg/L	19.6	19.5	Erosion of natural deposits
Sodium	mg/L	46.7	47.9	Natural constituent
Total Hardness (as $CaC0_3$)	mg/L	87	87	Natural constituent
Total Organic Carbon (TOC)	mg/L	1.57	1.48	Natural constituent

Abbreviations for Tables

AL = Action Level: The concentration of Lead and Copper, that, if exceeded, triggers treatment or other requirements that a water system must follow. ALs are set by the USEPA.

NL = Notification Level: The health-based advisory level established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their NLs, certain reporting requirements and operational recommendations apply.

mg/L = milligrams per Liter (equivalent to parts per million)

NTU = Nephelometric Turbidity Units

pCi/L = picoCuries per Liter (a unit of radioactivity)

TON = Threshold Odor Number

TT = Treatment technique: A required process to reduce the level of a contaminant in drinking water; alternative to an MCL

µg/L = micrograms per Liter (equivalent to parts per billion)

µS/cm = micro Siemens per centimeter

< = less than (example: for aluminum, <50 means the analytical value reported is less than 50 micrograms per liter of sample, the detection limit for aluminum)

Footnotes for Tables

(a) = At-the-tap monitoring was conducted in 2011 (once every three years) as required by the Lead and Copper Rule. A system is out of compliance if the Action Level is exceeded in the 90th percentile of all samples at the customer's tap. Power Plants 1 and 2's 90th percentile value for lead exceeded their respective action levels. All copper values were in compliance.

(b) = Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality and filtration performance. The Primary Drinking Water Standard for turbidity at treatment plant is less than or equal to 0.3 NTU in at least 95% of the measurements taken in any month and shall not exceed 1.0 NTU at any time. High turbidity can hinder the effectiveness of disinfectants.

The reporting requirement for treatment plant turbidity is: report the highest single measurement in the calendar year and the lowest monthly percentage of measurement that are less than or equal to 0.3 NTU. The high turbidity reading reflects a single reading taken out of some 9,000 readings in each plant. Turbidity is monitored in 15 minute intervals all year round.

For more information regarding this report, please call Ms. Josefa V. Esparrago at (213) 367-0287 of the Water Quality Division.